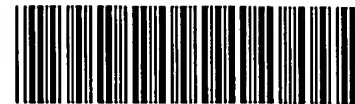


RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/024,632 A
Source: 1FW/b
Date Processed by STIC: 10/2/06

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 10/02/2006

PATENT APPLICATION: US/10/024,632A

TIME: 14:03:10

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Output Set: N:\CRF4\10022006\J024632A.raw

3 <110> APPLICANT: HE, STEVE S.
 4 DOTSON, STANTON B.
 6 <120> TITLE OF INVENTION: NUCLEIC ACID MOLECULES ASSOCIATED WITH PLANT CELL
 7 PROLIFERATION AND GROWTH AND USES THEREOF
 9 <130> FILE REFERENCE: 16517.327
 11 <140> CURRENT APPLICATION NUMBER: 10/024,632A
 12 <141> CURRENT FILING DATE: 2001-12-19
 14 <150> PRIOR APPLICATION NUMBER: 60/257,896
 15 <151> PRIOR FILING DATE: 2000-12-21
 17 <160> NUMBER OF SEQ ID NOS: 42
 19 <170> SOFTWARE: PatentIn Ver. 3.3
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 2344
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Glycine max
 26 <220> FEATURE:
 27 <221> NAME/KEY: CDS
 28 <222> LOCATION: (242)..(2233)
 30 <400> SEQUENCE: 1
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 35 gcagagatta acatgatgat tagtttattt gccaaagcaat gccttccttc gtgagatata 180
 37 aactgctagc aatttcaa atctttcgagt aaccaaag aaaaaacaa aaagcaagaa 240
 39 g atg aag cgc ata aat gag agt aac aac acc gat gat gga aac aat cat 289
 40 Met Lys Arg Ile Asn Glu Ser Asn Asn Thr Asp Asp Gly Asn Asn His
 41 1 5 10 15
 43 aac tgg ttg ggg ttc tct ctc tca ccc cac atg aaa atg gag gct act 337
 44 Asn Trp Leu Gly Phe Ser Leu Ser Pro His Met Lys Met Glu Ala Thr
 45 20 25 30
 47 tca gca gcc act gtt ccg aca acc ttc tac atg tcc cct tct caa tct 385
 48 Ser Ala Ala Thr Val Pro Thr Thr Phe Tyr Met Ser Pro Ser Gln Ser
 49 35 40 45
 51 cac ttg tcc aac ttc gga atg tgt tac ggt gtc gga gaa aat ggt aac 433
 52 His Leu Ser Asn Phe Gly Met Cys Tyr Gly Val Gly Glu Asn Gly Asn
 53 50 55 60
 55 ttc cat tct cca ctt acg gtt atg cct ctc aag tct gat ggg tca ctt 481
 56 Phe His Ser Pro Leu Thr Val Met Pro Leu Lys Ser Asp Gly Ser Leu
 57 65 70 75 80
 59 tgt atc ttg gaa gct ctc aaa aga tca caa acg caa gtg atg gtg cca 529
 60 Cys Ile Leu Glu Ala Leu Lys Arg Ser Gln Thr Gln Val Met Val Pro
 61 85 90 95
 63 act tcg tct ccg aaa ttg gag gac ttt cta ggt ggt gca act atg gga 577
 64 Thr Ser Ser Pro Lys Leu Glu Asp Phe Leu Gly Gly Ala Thr Met Gly

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Output Set: N:\CRF4\10022006\J024632A.raw

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68 Thr His Glu Tyr Gly Ser His Glu Arg Gly Leu Ser Leu Asp Ser Ile
69          115          120          125
71 tat tat aac tcc caa aac gca gag gct caa ccc aac aga gac ctt ctt 673
72 Tyr Tyr Asn Ser Gln Asn Ala Glu Ala Gln Pro Asn Arg Asp Leu Leu
73          130          135          140
75 tca caa ccc ttc agg caa caa ggt cat atg agt gtc caa aca cac cct 721
76 Ser Gln Pro Phe Arg Gln Gln Gly His Met Ser Val Gln Thr His Pro
77 145          150          155          160
79 tat tac tca ggc ctt gct tgc cat ggt tta tat caa gca ccg ttg gag 769
80 Tyr Tyr Ser Gly Leu Ala Cys His Gly Leu Tyr Gln Ala Pro Leu Glu
81          165          170          175
83 gaa gaa aca aca aag gaa acg cac gtg tcg gat tgc agc tcc cta atg 817
84 Glu Glu Thr Thr Lys Glu Thr His Val Ser Asp Cys Ser Ser Leu Met
85          180          185          190
87 cct caa atg aca gaa ggc ttg aaa aac tgg gtg gct cca aca agg gag 865
88 Pro Gln Met Thr Glu Gly Leu Lys Asn Trp Val Ala Pro Thr Arg Glu
89          195          200          205
91 ttt tca act cac cag cag gtt ttg gag cag caa atg aat tgt ggc atg 913
92 Phe Ser Thr His Gln Gln Val Leu Glu Gln Gln Met Asn Cys Gly Met
93          210          215          220
95 ggg aat gag aga aat ggt gtg tct tta gga tct gtg ggg tgt gga gag 961
96 Gly Asn Glu Arg Asn Gly Val Ser Leu Gly Ser Val Gly Cys Gly Glu
97 225          230          235          240
99 tta cag tct cta agc tta tct atg agt cct ggt tct cag tct agt tgt 1009
100 Leu Gln Ser Leu Ser Leu Ser Met Ser Pro Gly Ser Gln Ser Ser Cys
101          245          250          255
103 gtc act gct cct tct gga aca gat tct gtt gct gtg gat gca aag aag 1057
104 Val Thr Ala Pro Ser Gly Thr Asp Ser Val Ala Val Asp Ala Lys Lys
105          260          265          270
107 aga ggg cat gct aaa ctt ggt cag aag cag cct gtg cat aga aaa tct 1105
108 Arg Gly His Ala Lys Leu Gly Gln Lys Gln Pro Val His Arg Lys Ser
109          275          280          285
111 atc gac aca ttt ggg caa aga acc tcg cag tat aga ggt gtc aca agg 1153
112 Ile Asp Thr Phe Gly Gln Arg Thr Ser Gln Tyr Arg Gly Val Thr Arg
113          290          295          300
115 cat aga tgg act ggt agg tat gaa gcg cat ttg tgg gat aat agt tgc 1201
116 His Arg Trp Thr Gly Arg Tyr Glu Ala His Leu Trp Asp Asn Ser Cys
117 305          310          315          320
119 aag aag gaa ggg caa act agg aaa gga cga caa gtg tat ttg ggg ggt 1249
120 Lys Lys Glu Gly Gln Thr Arg Lys Gly Arg Gln Val Tyr Leu Gly Gly
121          325          330          335
123 tat gat atg gag gag aaa gct gca aga gcc tat gat ctc gcg gcc ctt 1297
124 Tyr Asp Met Glu Glu Lys Ala Ala Arg Ala Tyr Asp Leu Ala Ala Leu
125          340          345          350
127 aag tac tgg gga cct tca acg cat ata aac ttt tcg ata gag aat tac 1345
128 Lys Tyr Trp Gly Pro Ser Thr His Ile Asn Phe Ser Ile Glu Asn Tyr
129          355          360          365

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RAW SEQUENCE LISTING

DATE: 10/02/2006

PATENT APPLICATION: US/10/024,632A

TIME: 14:03:10

Input Set : A:\16517327.APP

Output Set: N:\CRF4\10022006\J024632A.raw

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131 caa gtt caa ctt gag gaa atg aag aac atg agc aga cag gaa tac gtt 1393
132 Gln Val Gln Leu Glu Glu Met Lys Asn Met Ser Arg Gln Glu Tyr Val
133      370      375      380
135 gca cac ttg aga aga aaa agc agc ggg ttt tct aga ggt gct tca ata 1441
136 Ala His Leu Arg Arg Lys Ser Ser Gly Phe Ser Arg Gly Ala Ser Ile
137 385      390      395      400
139 tac aga ggg gtc aca agg cat cac caa cat gga aga tgg caa gcg agg 1489
140 Tyr Arg Gly Val Thr Arg His His Gln His Gly Arg Trp Gln Ala Arg
141      405      410      415
143 ata ggc aga gtt gct ggg aac aaa gac ctt tac ctt ggg acg ttc agc 1537
144 Ile Gly Arg Val Ala Gly Asn Lys Asp Leu Tyr Leu Gly Thr Phe Ser
145      420      425      430
147 acc caa gag gaa gca gca gaa gca tac gat gta gcg gcg atc aaa ttt 1585
148 Thr Gln Glu Glu Ala Ala Glu Ala Tyr Asp Val Ala Ala Ile Lys Phe
149      435      440      445
151 cgc ggc gca aat gca gtc aca aac ttt gac att tca aga tac gat gtg 1633
152 Arg Gly Ala Asn Ala Val Thr Asn Phe Asp Ile Ser Arg Tyr Asp Val
153      450      455      460
155 gag aga atc atg gcc agt agc aat ctc ctc gct ggg gag ctt gca agg 1681
156 Glu Arg Ile Met Ala Ser Ser Asn Leu Leu Ala Gly Glu Leu Ala Arg
157 465      470      475      480
159 cgt aag aaa gat aac gat cct aga aac aag gac ata gac tac aac aag 1729
160 Arg Lys Lys Asp Asn Asp Pro Arg Asn Lys Asp Ile Asp Tyr Asn Lys
161      485      490      495
163 agt gta gta aca agt gtg aac aat gag gaa acg gtt caa gtt caa gca 1777
164 Ser Val Val Thr Ser Val Asn Asn Glu Glu Thr Val Gln Val Gln Ala
165      500      505      510
167 gga aac aac aat aat gaa aac gac tca gag tgg aag atg gtt tta ttt 1825
168 Gly Asn Asn Asn Asn Glu Asn Asp Ser Glu Trp Lys Met Val Leu Phe
169      515      520      525
171 aac cac cct tca cag cag caa cag gca aat ggc aat ggc agt gac caa 1873
172 Asn His Pro Ser Gln Gln Gln Gln Ala Asn Gly Asn Gly Ser Asp Gln
173      530      535      540
175 aaa ata atg aac tgt gga aat tac aga aac agt gca ttt tct atg gcc 1921
176 Lys Ile Met Asn Cys Gly Asn Tyr Arg Asn Ser Ala Phe Ser Met Ala
177 545      550      555      560
179 cta caa gat ctt att ggg att gat tcg gtg ggt tct ggg cag cat aat 1969
180 Leu Gln Asp Leu Ile Gly Ile Asp Ser Val Gly Ser Gly Gln His Asn
181      565      570      575
183 atg ctg gac gag tct agc aaa att ggg act cat ttt tca aac acg tca 2017
184 Met Leu Asp Glu Ser Ser Lys Ile Gly Thr His Phe Ser Asn Thr Ser
185      580      585      590
187 tcg ctg gtg aca agt tta agc agc tca aga gag gct agt cct gag aaa 2065
188 Ser Leu Val Thr Ser Leu Ser Ser Ser Arg Glu Ala Ser Pro Glu Lys
189      595      600      605
191 agg ggt ccc tcg ctt ctg ttc cca atg cct cca atg gaa aca aag att 2113
192 Arg Gly Pro Ser Leu Leu Phe Pro Met Pro Pro Met Glu Thr Lys Ile
193      610      615      620
195 gtg aac ccc att ggt acc agt gtt acc tct tgg cta ccc tca cca acg 2161

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RAW SEQUENCE LISTING

DATE: 10/02/2006

PATENT APPLICATION: US/10/024,632A

TIME: 14:03:10

Input Set : A:\16517327.APP

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199 gtt caa atg agg cct tct cct gct atc tct ttg tct cac ttg cca gtt 2209
200 Val Gln Met Arg Pro Ser Pro Ala Ile Ser Leu Ser His Leu Pro Val
201                      645                      650                      655
203 ttt gct tct tgg act gat act taa atggagatag gcacggtcca tttttcatgt 2263
204 Phe Ala Ser Trp Thr Asp Thr
205                      660
207 tatgttatgt aactaaaatt tacttttttc cttcatcttt tattttctaatt ttgatttcct 2323
209 aagttttaaaa aaaaaaaaaa a 2344
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213 <211> LENGTH: 663
214 <212> TYPE: PRT
215 <213> ORGANISM: Glycine max
217 <400> SEQUENCE: 2
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221 Asn Trp Leu Gly Phe Ser Leu Ser Pro His Met Lys Met Glu Ala Thr
222 20 25 30
224 Ser Ala Ala Thr Val Pro Thr Thr Phe Tyr Met Ser Pro Ser Gln Ser
225 35 40 45
227 His Leu Ser Asn Phe Gly Met Cys Tyr Gly Val Gly Glu Asn Gly Asn
228 50 55 60
230 Phe His Ser Pro Leu Thr Val Met Pro Leu Lys Ser Asp Gly Ser Leu
231 65 70 75 80
233 Cys Ile Leu Glu Ala Leu Lys Arg Ser Gln Thr Gln Val Met Val Pro
234 85 90 95
236 Thr Ser Ser Pro Lys Leu Glu Asp Phe Leu Gly Gly Ala Thr Met Gly
237 100 105 110
239 Thr His Glu Tyr Gly Ser His Glu Arg Gly Leu Ser Leu Asp Ser Ile
240 115 120 125
242 Tyr Tyr Asn Ser Gln Asn Ala Glu Ala Gln Pro Asn Arg Asp Leu Leu
243 130 135 140
245 Ser Gln Pro Phe Arg Gln Gln Gly His Met Ser Val Gln Thr His Pro
246 145 150 155 160
248 Tyr Tyr Ser Gly Leu Ala Cys His Gly Leu Tyr Gln Ala Pro Leu Glu
249 165 170 175
251 Glu Glu Thr Thr Lys Glu Thr His Val Ser Asp Cys Ser Ser Leu Met
252 180 185 190
254 Pro Gln Met Thr Glu Gly Leu Lys Asn Trp Val Ala Pro Thr Arg Glu
255 195 200 205
257 Phe Ser Thr His Gln Gln Val Leu Glu Gln Gln Met Asn Cys Gly Met
258 210 215 220
260 Gly Asn Glu Arg Asn Gly Val Ser Leu Gly Ser Val Gly Cys Gly Glu
261 225 230 235 240
263 Leu Gln Ser Leu Ser Leu Ser Met Ser Pro Gly Ser Gln Ser Ser Cys
264 245 250 255
266 Val Thr Ala Pro Ser Gly Thr Asp Ser Val Ala Val Asp Ala Lys Lys
267 260 265 270

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RAW SEQUENCE LISTING

DATE: 10/02/2006

PATENT APPLICATION: US/10/024,632A

TIME: 14:03:10

Input Set : A:\16517327.APP

Output Set: N:\CRF4\10022006\J024632A.raw

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269 Arg Gly His Ala Lys Leu Gly Gln Lys Gln Pro Val His Arg Lys Ser
270      275      280      285
272 Ile Asp Thr Phe Gly Gln Arg Thr Ser Gln Tyr Arg Gly Val Thr Arg
273      290      295      300
275 His Arg Trp Thr Gly Arg Tyr Glu Ala His Leu Trp Asp Asn Ser Cys
276 305      310      315      320
278 Lys Lys Glu Gly Gln Thr Arg Lys Gly Arg Gln Val Tyr Leu Gly Gly
279      325      330      335
281 Tyr Asp Met Glu Glu Lys Ala Ala Arg Ala Tyr Asp Leu Ala Ala Leu
282      340      345      350
284 Lys Tyr Trp Gly Pro Ser Thr His Ile Asn Phe Ser Ile Glu Asn Tyr
285      355      360      365
287 Gln Val Gln Leu Glu Glu Met Lys Asn Met Ser Arg Gln Glu Tyr Val
288      370      375      380
290 Ala His Leu Arg Arg Lys Ser Ser Gly Phe Ser Arg Gly Ala Ser Ile
291 385      390      395      400
293 Tyr Arg Gly Val Thr Arg His His Gln His Gly Arg Trp Gln Ala Arg
294      405      410      415
296 Ile Gly Arg Val Ala Gly Asn Lys Asp Leu Tyr Leu Gly Thr Phe Ser
297      420      425      430
299 Thr Gln Glu Glu Ala Ala Glu Ala Tyr Asp Val Ala Ala Ile Lys Phe
300      435      440      445
302 Arg Gly Ala Asn Ala Val Thr Asn Phe Asp Ile Ser Arg Tyr Asp Val
303      450      455      460
305 Glu Arg Ile Met Ala Ser Ser Asn Leu Leu Ala Gly Glu Leu Ala Arg
306 465      470      475      480
308 Arg Lys Lys Asp Asn Asp Pro Arg Asn Lys Asp Ile Asp Tyr Asn Lys
309      485      490      495
311 Ser Val Val Thr Ser Val Asn Asn Glu Glu Thr Val Gln Val Gln Ala
312      500      505      510
314 Gly Asn Asn Asn Asn Glu Asn Asp Ser Glu Trp Lys Met Val Leu Phe
315      515      520      525
317 Asn His Pro Ser Gln Gln Gln Gln Ala Asn Gly Asn Gly Ser Asp Gln
318      530      535      540
320 Lys Ile Met Asn Cys Gly Asn Tyr Arg Asn Ser Ala Phe Ser Met Ala
321 545      550      555      560
323 Leu Gln Asp Leu Ile Gly Ile Asp Ser Val Gly Ser Gly Gln His Asn
324      565      570      575
326 Met Leu Asp Glu Ser Ser Lys Ile Gly Thr His Phe Ser Asn Thr Ser
327      580      585      590
329 Ser Leu Val Thr Ser Leu Ser Ser Ser Arg Glu Ala Ser Pro Glu Lys
330      595      600      605
332 Arg Gly Pro Ser Leu Leu Phe Pro Met Pro Pro Met Glu Thr Lys Ile
333      610      615      620
335 Val Asn Pro Ile Gly Thr Ser Val Thr Ser Trp Leu Pro Ser Pro Thr
336 625      630      635      640
338 Val Gln Met Arg Pro Ser Pro Ala Ile Ser Leu Ser His Leu Pro Val
339      645      650      655
341 Phe Ala Ser Trp Thr Asp Thr

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/024,632A

DATE: 10/02/2006
TIME: 14:03:11

Input Set : A:\16517327.APP
Output Set: N:\CRF4\10022006\J024632A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:25; Xaa Pos. 1
Seq#:26; Xaa Pos. 1
Seq#:28; Xaa Pos. 4,7
Seq#:29; Xaa Pos. 4,7
Seq#:30; Xaa Pos. 4,7
Seq#:31; Xaa Pos. 3

VERIFICATION SUMMARY

DATE: 10/02/2006

PATENT APPLICATION: US/10/024,632A

TIME: 14:03:11

Input Set : A:\16517327.APP

Output Set: N:\CRF4\10022006\J024632A.raw

L:1808 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:1827 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:1865 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1913 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1932 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0